



ORTUS  
ACADEMY

*"Education Through Experience."*

## *Year 2 Report*

This has been a fantastic year for Ortus Academy, and that success began with receiving the support of the Baltimore CollegeTown Network to help us create and pilot our game. After our Pilot, the first play of NumisMatters with our target audience, on April 9<sup>th</sup>, 2016, we attracted interest and funding from Allegis Foundation, MECU, UHI Grant, Wyomissing Foundation and Loyola University. We couldn't have gotten where we are without the support of these organizations.

First and foremost, we did successfully earn some press:



***Baltimore Business Journal Covers the Inception of Ortus Academy and NumisMatters with President Aaron Velky***

<http://www.bizjournals.com/baltimore/news/2017/04/21/how-i-created-a-game-to-make-finance-fun-for.html>

Here are some of the statistics we have accomplished in the past year that directly resulted from our recent operations.

STUDENTS	<b>8</b>	<b>154</b>	<b>80%</b>
	Sessions held	Students (Grades 6 – 12)	Attendance rate at all sessions
VOLUNTEERS	<b>85</b>	<b>3</b>	<b>6</b>
	Volunteers: 65 UnderGrad volunteers, 20 non-college	Average number of sessions a volunteer was involved in	Number of different Colleges/Universities volunteers attend

AVERAGES

65K

Amount of in-game savings after second session

-74%

Decrease of lottery tickets sold in the second session compared to first session sales

96

Higher education degrees earned in-game

## EVENTS

Ortus Academy's financial decision-making game that simulates 10 years of life, NumisMatters, was played by over 200 students in over 8 individual programs at 6 schools.

- Our Pilot Program was a diverse group of 25 students from both public and private schools from schools across Baltimore. Loyola University allowed us to host this 3-hour session.
- Two sessions with 30 students at The St. Frances Summer Program in East Baltimore.
- Two sessions with 25 students at The Community School, near Johns Hopkins Universities Homewood Campus. We played twice with this exceptional student base.
- Three game sessions and 10 learning sessions were provided to the Calvert School, a private school in Baltimore, MD. 22 students enrolled in Money Club, which finished in February.
- Two sessions are scheduled with Guilford Elementary/Middle School. A total of 20 students were enrolled. The first session, scheduled for April 26, was hosted at Loyola University. Providing Guilford students with the opportunity to get exposed to a local university campus.
- We hosted a program with 32 students at The Baltimore Lab School. NumisMatters is such an experiential game that we know it will be a useful tool to teach students with various learning disabilities to value the making smart financial decisions in a more memorable way than doing calculations in a workbook. This is an area that we have been wanting to pursue and are excited about the future possibilities in this field.

## FINDINGS

We have identified 4 attitudes that most people fall in to at various points in their lives, which we refer to as: *The Spender*, *The Saver*, *The Investor*, and *The Giver*. By comparing student's pre-tests and post-test results, post-game debriefing with the students, as well as comparing some of their financial decisions from session to session, we discovered an overall shift in financial attitudes.

The average breakdown across the four schools was

Attitude Type	Pre-Game	Post-Game
Spender	45%	24%
Saver	36%	46%

Investor	17%	29%
Giver	2%	1%

While many of the students came in as Spenders, they left learning the value of saving and investing in their future. Spending is a part of life – and therefore a part of the game. There are things you will always have to pay for, but the Spender Attitude looks at frivolous spending. The most significant change was in the number of students who invested in their education (buying an Associate’s Degree or a Bachelor’s Degree) early in the game.

One of the rules of the game is that you must continue to move in a forward direction. If students don’t take enough money out of the bank to prepare for your upcoming expenses, plus contingency, they will fall into debt. In their first session, students walked around with all their money in hand. Opening them up to “losing it” and failure to earn interest. Students who played more than once saw the value in retaining savings, earning interest, and forgoing the risk of “losing it.” On average, the savings amounts double in the second session.

There was a 24% increase in the number of students who bought a home, as opposed to renting, by the third year, in their second session. Their first home option reduces their expenses by \$4000 per year. Over the course of the game that can be as much as \$32,000 saved. The most successful students were the ones who bought a second home and rented out the first – as a form of investment that generated passive income.

Lastly, in every circumstance, the college student who would sell lottery tickets sold significantly less in the second session when compared to the first. Showing a decrease in Spender Attitude and a value of retaining their money.

While we don’t really discuss the value and responsibility of sharing your money with those in need or social programs, some students understand this concept already. While we don’t discourage this behavior at all, a few students decided that they should focus on saving first then giving second.

### Lessons from each school

Each school, and each session taught us a few lessons that we put into action at our next session.

Our Pilot Program should us that we were on the right track, but needed to refine our processes. As a first live-run, we found a few small areas that could easily be improved. There were lines at some tables, which slowed down play, and others were very quick. To address this issue, we opted to start by grouping the students together and having them move through the game as a cohort.

At St. Frances, the cohort principle proved to be useful. But, there was still delay at the table that simulates life decisions. There is a spinning colored wheel at this table which correlates with a colored card that randomly effects the player positively or negatively. Moving forward, we bought another wheel. St. Frances student population also showed us that we needed to adapt our program for high school students, and make sure that students understood some of the basic principles of math.

The Community School gave us the experience of running our game in a smaller, confined, space and in multiple rooms. In a small space there had to be a better way to communicate from table to table. Because of this, we began developing a volunteer facing web-based app that allows for sharing of data

between tables. More on this later. As The Community School is for high school aged students, this experience proved our need to keep game malleable to older ages in an environment that serves a wide age range, but was highly successful.

Our next big development has come in the form of our mobile application. The application allows volunteers to input decisions made by the students and automatically updates the students record at other stations. For example, if a student's expenses decrease by 2%, the expense table is notified that they will be receiving 2% less and can make sure the student has done the proper calculations. It also allows for more us to track and report on decisions made by students in a more reliable way.

Admittedly, our method of tracking data is rudimentary and in need of streamlining. The app was tested in a session at the Guilford Elem/Middle.



## ANECDOTES

Comments submitted from students and parents in reflection of their experiences:

**"I liked that it was a game, not just a class. It was really fun and even though it wasn't exact, I think it is a little bit like real life."**

**"I liked how it was an accurate representation of dealing with money."**

**"The winning prize. I liked the winning prize because it inspires the player to try harder."**

**"Earning my degree was really worth the investment."**

**"I like the probability aspects of it and how your decisions have consequences (good or bad). I think it enforces good choice-making and it's a good way to make people enthusiastic about life choices and handling finances."**

**"I liked the second time we played, because I was more experienced than the first time."**

**"I liked learning how expenses can take out a huge cut of your budget."**

**"It showed how one wrong move can lead to trouble - like being in debt."**

**"So if I buy an education, I get to make more money at my job next year"**

**"I really want a nice house, but I can't afford it...yet...if I save, next year for sure"**

**"If I didn't waste money on the lottery I could have bought a house that one turn (year)"**

**"I like the fact that I can't touch my money makes me feel like I'm rich."**

**When I have money in my pocket I tend to spend it all":**



Here are the top 3 themes we heard multiple times from various leadership staff at schools and volunteers:

1. Why isn't this taught in school regularly?
2. I wish someone had taught me this when I was younger. It would've saved me a lot of money from making simple mistakes.
3. The lottery is stupid and a waste of money. No one ever wins, so why is it that so many students do?

Here are some of our favorite experiences at these schools:

1. We met a student from The Community School, working at R House bussing tables, who recognized Aaron Velky and thanked him for teaching her about money before she got the job. Aaron stops by this school often, and the students all recognize him and they usually briefly chat about money while he's there.
2. A student tried to buy all of the available lottery tickets, which prompted a stop-freeze moment where we addressed the idea of buying all the tickets, the objectives, and the reality of the attempt with the MD lottery

## NEXT STEPS

Ortus Academy is committed to continuing to grow and to helping teach students of Baltimore, and the surrounding area, the value of making smart financial decisions. Our experiences working with the students through this grant allowed us to see some areas in which we needed to grow.

We've been able to leverage our volunteer base at local colleges, now with over 32 students engaged (meaning volunteering for more than one program) between UMBC, Towson, Hopkins, University of Baltimore, Stevenson and Loyola.

We were awarded a \$13,500 grant from the Wyomissing Foundation to further our development, build our volunteer-facing web-based application, purchase tablet computers for this application to run, and hire interns. We are looking for further development funding to support overhead costs, need for staff and intern salaries, app refinement, and a virtual platform (revenue).

We are currently applying for funding from local financial companies and corporate businesses that would help support our technology needs, which ties directly to doing more events and more programs, and our need to create videos of our products and programs.

We are applying for further funding through the Baltimore Summer Collaborative and the Johns Hopkins Neighborhood Fund to continue operations this summer and fall. If we're awarded the funds as projected, we'll have the program hosted in 6 other schools and programs, which include the Bon Sequors Community Works summer program, the Innovation Village summer program, and will be returning to schools for the second year in a row. We do anticipate more interest.

We developed a new comprehensive program that we are calling The Money Club. It is a 12-session course in which the students play NumisMatters three times and are given insights and information in more structured lesson-sessions. We successfully developed and competed this program at The Calvert School between December and February. We successfully sold this program, and are building a revenue model to support our operations and overhead.

Last, we've slimmed and narrowed our program to fit the needs of schools. We are currently identifying schools for fall sales or grant-supported operations. We have confirmed interest from St. Paul's School for Girls, Gilman, Boys Latin and The Greenmount School, and initial interest from a few others.

Thank you for continuing to support the education of our youth in arguably the most important school takeaway.



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All questions and comments can be directed to our President and Co-Founder, Aaron Velky:

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